

January 24, 2006
Editorial

'Rising Above the Gathering Storm'

We know that American high-tech companies often look abroad for workers who are cheaper. But the situation gets much more dire if they say they need to go overseas just to find employees who are skilled in math and science. The scope of this problem is made clear in an alarming report, "Rising Above the Gathering Storm," from the National Academies, the country's leading advisory group on science and technology. It decries the dismal state of math and science education and calls for an ambitious national program that would retrain the current teacher core, while attracting 10,000 new math and science teachers into the profession every year for the foreseeable future.

Congress is considering proposals that would offer substantial scholarships to math and science majors who enter teaching, as well as to low-income college freshmen from high schools that offer appropriately rigorous curriculums. Although it's far from clear how the program would work, it might be a good way to pressure the states that have thus far ignored education reform for the upper grades.

But, commendable as this impulse is, it hardly addresses the central problem of teacher preparation. Many education colleges have become diploma mills where the curriculum has little or nothing to do with the employment needs of the public schools in the state. Thanks to poor planning - or no planning - they place no particular emphasis on training teachers who actually major in subject areas like math and science. The data suggests that more than 60 percent of the public school students in some areas of math and science learn from teachers who have not majored in the subject taught or have no certification in it.

The No Child Left Behind Act, which was passed four years ago, was supposed to take care of this problem by requiring the states to improve teachers' training and to make sure that all teachers were "highly qualified" by the end of this school year. Instead, the federal government has allowed the states to simply define the problem away - by relabeling the same old teaching force as "highly qualified." States aren't even required to report on how many teachers have actually majored in the subjects they teach.

It will be impossible to improve math and science education until we assess teachers' preparedness based on the same high standards in all parts of the country. Teachers must gradually be held accountable for majoring in the areas they teach, especially when the areas are math and science, and for demonstrating that they have mastered those subjects by passing rigorous tests. Even Bush administration insiders realize that Washington has dropped the ball on this issue. While the latest round of proposed reforms is welcome, it will have little effect without skilled, well-educated teachers.